

6

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1646

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/313,942

DATE: 02/14/2002

TIME: 15:49:04

Input Set : A:\REG203.txt

Output Set: N:\CRF3\02142002\I313942.raw

ENTERED

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4 <110> APPLICANT: REGENERON PHARMACEUTICALS, INC.
6 <120> TITLE OF INVENTION: RECEPTOR BASED ANTAGONISTS, AND METHODS OF MAKING
7   AND USING
9 <130> FILE REFERENCE: REG 203-A
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/313,942
12 <141> CURRENT FILING DATE: 1999-05-19
14 <150> PRIOR APPLICATION NUMBER: 09/313,942
15 <151> PRIOR FILING DATE: 1999-05-19
17 <150> PRIOR APPLICATION NUMBER: 60/101,858
18 <151> PRIOR FILING DATE: 1998-09-25
20 <160> NUMBER OF SEQ ID NOS: 32
22 <170> SOFTWARE: FastSEQ for Windows Version 3.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 6
26 <212> TYPE: PRT
27 <213> ORGANISM: Artificial Sequence
29 <220> FEATURE:
30 <223> OTHER INFORMATION: Tag sequence
32 <400> SEQUENCE: 1
33   His His His His His His
34   1      5
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 16
38 <212> TYPE: PRT
39 <213> ORGANISM: Artificial Sequence
41 <220> FEATURE:
42 <223> OTHER INFORMATION: peptide derived from region near C-terminus of
43   gp130
45 <400> SEQUENCE: 2
46   Cys Gly Thr Glu Gly Gln Val Glu Arg Phe Glu Thr Val Gly Met Glu
47   1      5      10      15
49 <210> SEQ ID NO: 3
50 <211> LENGTH: 16
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Kozak sequence
57 <400> SEQUENCE: 3
58   cgccgccacc atggtg
60 <210> SEQ ID NO: 4
61 <211> LENGTH: 10
62 <212> TYPE: PRT
63 <213> ORGANISM: Artificial Sequence

```

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OK to Enter

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65 <220> FEATURE:
66 <223> OTHER INFORMATION: J peptide
68 <400> SEQUENCE: 4
69 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
70 1 5 10
72 <210> SEQ ID NO: 5
73 <211> LENGTH: 11
74 <212> TYPE: PRT
75 <213> ORGANISM: Artificial Sequence
77 <220> FEATURE:
78 <223> OTHER INFORMATION: J peptide
80 <400> SEQUENCE: 5
81 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
82 1 5 10
84 <210> SEQ ID NO: 6
85 <211> LENGTH: 10
86 <212> TYPE: PRT
87 <213> ORGANISM: Artificial Sequence
89 <220> FEATURE:
90 <223> OTHER INFORMATION: linker sequence
92 <400> SEQUENCE: 6
93 Gly Ala Pro Ser Gly Gly Gly Arg Pro
94 1 5 10
96 <210> SEQ ID NO: 7
97 <211> LENGTH: 859
98 <212> TYPE: PRT
99 <213> ORGANISM: Homo sapiens
101 <400> SEQUENCE: 7
102 Met Val Thr Leu Gln Thr Trp Val Val Gln Ala Leu Phe Ile Phe Leu
103 1 5 10 15
104 Thr Thr Glu Ser Thr Gly Glu Leu Leu Asp Pro Cys Gly Tyr Ile Ser
105 20 25 30
106 Pro Glu Ser Pro Val Val Gln Leu His Ser Asn Phe Thr Ala Val Cys
107 35 40 45
108 Val Leu Lys Glu Lys Cys Met Asp Tyr Phe His Val Asn Ala Asn Tyr
109 50 55 60
110 Ile Val Trp Lys Thr Asn His Phe Thr Ile Pro Lys Glu Gln Tyr Thr
111 65 70 75 80
112 Ile Ile Asn Arg Thr Ala Ser Ser Val Thr Phe Thr Asp Ile Ala Ser
113 85 90 95
114 Leu Asn Ile Gln Leu Thr Cys Asn Ile Leu Thr Phe Gly Gln Leu Glu
115 100 105 110
116 Gln Asn Val Tyr Gly Ile Thr Ile Ile Ser Gly Leu Pro Pro Glu Lys
117 115 120 125
118 Pro Lys Asn Leu Ser Cys Ile Val Asn Glu Gly Lys Lys Met Arg Cys
119 130 135 140
120 Glu Trp Asp Gly Gly Arg Glu Thr His Leu Glu Thr Asn Phe Thr Leu
121 145 150 155 160
122 Lys Ser Glu Trp Ala Thr His Lys Phe Ala Asp Cys Lys Ala Lys Arg

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123					165					170				175
124	Asp	Thr	Pro	Thr	Ser	Cys	Thr	Val	Asp	Tyr	Ser	Thr	Val	Tyr
125														
126	Asn	Ile	Glu	Val	Trp	Val	Glu	Ala	Glu	Asn	Ala	Leu	Gly	Lys
127														
128	Ser	Asp	His	Ile	Asn	Phe	Asp	Pro	Val	Tyr	Lys	Val	Lys	Pro
129														
130	Pro	His	Asn	Leu	Ser	Val	Ile	Asn	Ser	Glu	Glu	Leu	Ser	Ser
131														
132	Lys	Leu	Thr	Trp	Thr	Asn	Pro	Ser	Ile	Lys	Ser	Val	Ile	Ile
133														
134	Tyr	Asn	Ile	Gln	Tyr	Arg	Thr	Lys	Asp	Ala	Ser	Thr	Trp	Ser
135														
136	Pro	Pro	Glu	Asp	Thr	Ala	Ser	Thr	Arg	Ser	Ser	Phe	Thr	Val
137														
138	Leu	Lys	Pro	Phe	Thr	Glu	Tyr	Val	Phe	Arg	Ile	Arg	Cys	Met
139														
140	Asp	Gly	Lys	Gly	Tyr	Trp	Ser	Asp	Trp	Ser	Glu	Glu	Ala	Ser
141														
142	Thr	Tyr	Glu	Asp	Arg	Pro	Ser	Lys	Ala	Pro	Ser	Phe	Trp	Tyr
143														
144	Asp	Pro	Ser	His	Thr	Gln	Gly	Tyr	Arg	Thr	Val	Gln	Leu	Val
145														
146	Thr	Leu	Pro	Pro	Phe	Glu	Ala	Asn	Gly	Lys	Ile	Leu	Asp	Tyr
147														
148	Thr	Leu	Thr	Arg	Trp	Lys	Ser	His	Leu	Gln	Asn	Tyr	Thr	Val
149														
150	Thr	Lys	Leu	Thr	Val	Asn	Leu	Thr	Asn	Asp	Arg	Tyr	Leu	Ala
151														
152	Thr	Val	Arg	Asn	Leu	Val	Gly	Lys	Ser	Asp	Ala	Ala	Val	Leu
153														
154	Pro	Ala	Cys	Asp	Phe	Gln	Ala	Thr	His	Pro	Val	Met	Asp	Leu
155														
156	Phe	Pro	Lys	Asp	Asn	Met	Leu	Trp	Val	Glu	Trp	Thr	Thr	Pro
157														
158	Ser	Val	Lys	Lys	Tyr	Ile	Leu	Glu	Trp	Cys	Val	Leu	Ser	Asp
159														
160	Pro	Cys	Ile	Thr	Asp	Trp	Gln	Gln	Glu	Asp	Gly	Thr	Val	His
161														
162	Tyr	Leu	Arg	Gly	Asn	Leu	Ala	Glu	Ser	Lys	Cys	Tyr	Leu	Ile
163														
164	Thr	Pro	Val	Tyr	Ala	Asp	Gly	Pro	Gly	Ser	Pro	Glu	Ser	Ile
165														
166	Tyr	Leu	Lys	Gln	Ala	Pro	Pro	Ser	Lys	Gly	Pro	Thr	Val	Arg
167														
168	Lys	Val	Gly	Lys	Asn	Glu	Ala	Val	Leu	Glu	Trp	Asp	Gln	Leu
169														
170	Asp	Val	Gln	Asn	Gly	Phe	Ile	Arg	Asn	Tyr	Thr	Ile	Phe	Tyr
171														

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```

172 Ile Ile Gly Asn Glu Thr Ala Val Asn Val Asp Ser Ser His Thr Glu
173           565           570           575
174 Tyr Thr Leu Ser Ser Leu Thr Ser Asp Thr Leu Tyr Met Val Arg Met
175           580           585           590
176 Ala Ala Tyr Thr Asp Glu Gly Gly Lys Asp Gly Pro Glu Phe Thr Phe
177           595           600           605
178 Thr Thr Pro Lys Phe Ala Gln Gly Glu Ile Glu Ser Gly Glu Pro Lys
179           610           615           620
180 Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
181           625           630           635           640
182 Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
183           645           650           655
184 Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
185           660           665           670
186 Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
187           675           680           685
188 Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
189           690           695           700
190 Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
191           705           710           715           720
192 Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
193           725           730           735
194 Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
195           740           745           750
196 Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln
197           755           760           765
198 Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
199           770           775           780
200 Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
201           785           790           795           800
202 Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
203           805           810           815
204 Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
205           820           825           830
206 Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
207           835           840           845
208 Leu Ser Pro Gly Lys His His His His His His
209           850           855
211 <210> SEQ ID NO: 8
212 <211> LENGTH: 592
213 <212> TYPE: PRT
214 <213> ORGANISM: Homo sapiens
216 <400> SEQUENCE: 8
217 Met Val Ala Val Gly Cys Ala Leu Leu Ala Ala Leu Leu Ala Ala Pro
218   1           5           10           15
219 Gly Ala Ala Leu Ala Pro Arg Arg Cys Pro Ala Gln Glu Val Ala Arg
220           20           25           30
221 Gly Val Leu Thr Ser Leu Pro Gly Asp Ser Val Thr Leu Thr Cys Pro
222           35           40           45

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```

223 Gly Val Glu Pro Glu Asp Asn Ala Thr Val His Trp Val Leu Arg Lys
224      50                      55                      60
225 Pro Ala Ala Gly Ser His Pro Ser Arg Trp Ala Gly Met Gly Arg Arg
226 65                      70                      75                      80
227 Leu Leu Leu Arg Ser Val Gln Leu His Asp Ser Gly Asn Tyr Ser Cys
228                      85                      90                      95
229 Tyr Arg Ala Gly Arg Pro Ala Gly Thr Val His Leu Leu Val Asp Val
230                      100                      105                      110
231 Pro Pro Glu Glu Pro Gln Leu Ser Cys Phe Arg Lys Ser Pro Leu Ser
232                      115                      120                      125
233 Asn Val Val Cys Glu Trp Gly Pro Arg Ser Thr Pro Ser Leu Thr Thr
234                      130                      135                      140
235 Lys Ala Val Leu Leu Val Arg Lys Phe Gln Asn Ser Pro Ala Glu Asp
236 145                      150                      155                      160
237 Phe Gln Glu Pro Cys Gln Tyr Ser Gln Glu Ser Gln Lys Phe Ser Cys
238                      165                      170                      175
239 Gln Leu Ala Val Pro Glu Gly Asp Ser Ser Phe Tyr Ile Val Ser Met
240                      180                      185                      190
241 Cys Val Ala Ser Ser Val Gly Ser Lys Phe Ser Lys Thr Gln Thr Phe
242                      195                      200                      205
243 Gln Gly Cys Gly Ile Leu Gln Pro Asp Pro Pro Ala Asn Ile Thr Val
244                      210                      215                      220
245 Thr Ala Val Ala Arg Asn Pro Arg Trp Leu Ser Val Thr Trp Gln Asp
246 225                      230                      235                      240
247 Pro His Ser Trp Asn Ser Ser Phe Tyr Arg Leu Arg Phe Glu Leu Arg
248                      245                      250                      255
249 Tyr Arg Ala Glu Arg Ser Lys Thr Phe Thr Thr Trp Met Val Lys Asp
250                      260                      265                      270
251 Leu Gln His His Cys Val Ile His Asp Ala Trp Ser Gly Leu Arg His
252                      275                      280                      285
253 Val Val Gln Leu Arg Ala Gln Glu Glu Phe Gly Gln Gly Glu Trp Ser
254 290                      295                      300
255 Glu Trp Ser Pro Glu Ala Met Gly Thr Pro Trp Thr Glu Ser Arg Ser
256 305                      310                      315                      320
257 Pro Pro Ala Glu Asn Glu Val Ser Thr Pro Met Gln Ala Leu Thr Thr
258                      325                      330                      335
259 Asn Lys Asp Asp Asp Asn Ile Leu Phe Arg Asp Ser Ala Asn Ala Thr
260                      340                      345                      350
261 Ser Leu Pro Val Gln Asp Ala Gly Glu Pro Lys Ser Cys Asp Lys Thr
262                      355                      360                      365
263 His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
264 370                      375                      380
265 Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
266 385                      390                      395                      400
267 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
268                      405                      410                      415
269 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
270                      420                      425                      430
271 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/313,942

DATE: 02/14/2002

TIME: 15:49:05

Input Set : A:\REG203.txt

Output Set: N:\CRF3\02142002\I313942.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number